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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/934,586

DATE: 10/16/2001

TIME: 13:54:13

Input Set : N:\Crf3\RULE60\09934586.txt

Output Set: N:\CRF3\10162001\I934586.raw

SEQUENCE LISTING

3 (1) GENERAL INFORMATION:

- 5 (i) APPLICANT: Au-Young, Janice
- 7 (ii) TITLE OF INVENTION: NOVEL HUMAN STEM CELL ANTIGENS
- 9 (iii) NUMBER OF SEQUENCES: 26
- 11 (iv) CORRESPONDENCE ADDRESS:
  - 12 (A) ADDRESSEE: Incyte Pharmaceuticals, Inc.
  - 13 (B) STREET: 3174 Porter Drive
  - 14 (C) CITY: Palo Alto
  - 15 (D) STATE: CA
  - 16 (E) COUNTRY: U.S.
  - 17 (F) ZIP: 94304

ENTERED

19 (v) COMPUTER READABLE FORM:

- 20 (A) MEDIUM TYPE: Diskette
- 21 (B) COMPUTER: IBM Compatible
- 22 (C) OPERATING SYSTEM: DOS
- 23 (D) SOFTWARE: FastSEQ Version 1.5

25 (vi) CURRENT APPLICATION DATA:

- C--> 26 (A) APPLICATION NUMBER: US/09/934,586
- C--> 27 (B) FILING DATE: 23-Aug-2001

28 (vii) PRIOR APPLICATION DATA:

- 29 (A) APPLICATION NUMBER: 09/225,080
- 30 (B) FILING DATE: 1999-01-04

32 (viii) ATTORNEY/AGENT INFORMATION:

- 33 (A) NAME: Billings, Lucy J.
- 34 (B) REGISTRATION NUMBER: 36,749
- 35 (C) REFERENCE/DOCKET NUMBER: PF-0066 US

37 (ix) TELECOMMUNICATION INFORMATION:

- 38 (A) TELEPHONE: 415-855-0555
- 39 (B) TELEFAX: 415-845-4166

41 (2) INFORMATION FOR SEQ ID NO: 1:

43 (i) SEQUENCE CHARACTERISTICS:

- 44 (A) LENGTH: 131 amino acids
- 45 (B) TYPE: amino acid
- 46 (C) STRANDEDNESS: single
- 47 (D) TOPOLOGY: linear

49 (ii) MOLECULE TYPE: peptide

51 (vii) IMMEDIATE SOURCE:

- 52 (A) LIBRARY: SCAH-1
- 53 (B) CLONE:

55 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

57	Met	Lys	Ile	Phe	Leu	Pro	Val	Leu	Leu	Ala	Leu	Leu	Gly	Val	Glu
58	1				5				10					15	
59	Arg	Ala	Ser	Ser	Leu	Met	Cys	Phe	Ser	Cys	Leu	Asn	Gln	Lys	Ser
60					20				25				30		
61	Leu	Tyr	Cys	Leu	Lys	Pro	Thr	Ile	Cys	Ser	Asp	Gln	Asp	Asn	Tyr
62					35				40				45		

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```

63 Val Thr Val Ser Ala Ser Ala Gly Ile Gly Asn Leu Val Thr Phe Gly
64      50                      55                      60
65 His Ser Leu Ser Lys Thr Cys Ser Pro Ala Cys Pro Ile Pro Glu Gly
66 65                      70                      75                      80
67 Val Asn Val Gly Val Ala Ser Met Gly Ile Ser Cys Cys Gln Ser Phe
68                      85                      90                      95
69 Leu Cys Asn Phe Ser Ala Ala Asp Gly Gly Leu Arg Ala Ser Val Thr
70                      100                      105                      110
W--> 71 Leu Leu Gly Ala Gly Leu Leu Leu Ser Leu Xaa Pro Ala Leu Leu Arg
72                      115                      120                      125
73 Phe Gly Pro
74      130
76 (2) INFORMATION FOR SEQ ID NO: 2:
77     (i) SEQUENCE CHARACTERISTICS:
78         (A) LENGTH: 123 amino acids
79         (B) TYPE: amino acid
80         (C) STRANDEDNESS: single
81         (D) TOPOLOGY: linear
82     (ii) MOLECULE TYPE: peptide
83     (vii) IMMEDIATE SOURCE:
84         (A) LIBRARY: SCAH-2
85         (B) CLONE:
86     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
92 Met Lys Ala Val Leu Leu Ala Leu Leu Met Ala Gly Leu Ala Leu Gln
93 1      5                      10                      15
94 Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys Lys Ala Gln Val Ser Asn
95      20                      25                      30
96 Glu Asp Cys Leu Gln Val Glu Asn Cys Thr Gln Leu Gly Glu Gln Cys
97      35                      40                      45
98 Trp Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys
99      50                      55                      60
100 Gly Cys Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly
101 65                      70                      75                      80
W--> 102 Lys Lys Asn Ile Thr Cys Cys Asp Thr Asp Leu Cys Asn Xaa Ser Gly
103                      85                      90                      95
104 Ala His Ala Leu Gln Pro Ala Ala Ala Ile Leu Ala Leu Leu Pro Ala
105      100                      105                      110
106 Leu Gly Leu Leu Leu Trp Gly Pro Gly Gln Leu
107      115                      120
109 (2) INFORMATION FOR SEQ ID NO: 3:
110     (i) SEQUENCE CHARACTERISTICS:
111         (A) LENGTH: 537 base pairs
112         (B) TYPE: nucleic acid
113         (C) STRANDEDNESS: single
114         (D) TOPOLOGY: linear
115     (ii) MOLECULE TYPE: cDNA
116     (vii) IMMEDIATE SOURCE:
117         (A) LIBRARY: SCAH-1
118         (B) CLONE:

```

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```

123      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
125  NAGGANGGTG GGGGACCCAN GGGTCCAGAG CGCAGTTCGG GTCGGAGCTY CGWCCAGGCT      60
126  GCTGGTACCT GCGTCCGCCC GGCGAGCAGG ACAGGCTGCT TTGGTTTGTG ACCTCCAGGC      120
127  AGGACGGCCA TCCTCTCCAG AATGAAGATC TTCTTGCCAG TGCTGCTGGC TGCCCTTCTG      180
128  GGTGTGGAGC GAGCCAGCTC GCTGATGTGC TTCTCCTGCT TGAACCAGAA GAGCAATCTG      240
129  TACTGCCTGA AGCCGACCAT CTGCTCCGAC CAGGACAACCT ACTGCGTGAC TGTGTCTGCT      300
130  AGTGCCGGCA TTGGGAATCT CGTGACATTT GGCCACAGCC TGAGCAAGAC CTGTTCCCCG      360
131  GCCTGCCCCA TCCCAGAAGG CGTCAATGTT GGTGTGGCTT CCATGGGCAT CAGCTGCTGC      420
132  CAGAGCTTTC TGTGCAATTT CAGTGCGGCC GATGGCGGGC TGCGGGCAAG CGTCACCTG      480
133  CTGGGTGCCG GGCTGCTGCT GAGCCTGWTG CCGGCCCTGC TCGGTTTGG CCCCTGA      537
135  (2) INFORMATION FOR SEQ ID NO: 4:
137      (i) SEQUENCE CHARACTERISTICS:
138          (A) LENGTH: 494 base pairs
139          (B) TYPE: nucleic acid
140          (C) STRANDEDNESS: single
141          (D) TOPOLOGY: linear
143      (ii) MOLECULE TYPE: cDNA
145      (vii) IMMEDIATE SOURCE:
146          (A) LIBRARY: SCAH-2
147          (B) CLONE:
149      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
151  GTGACCATGA AGGCTGTGCT GCTTGCCCTG TTGATGGCAG GCTTGGCCCT GCAGCCAGGC      60
152  ACTGCCCTGC TGTGCTACTC CTGCAAAGCC CAGGTGAGCA ACGAGGACTG CCTGCAGGTG      120
153  GAGAACTGCA CCCAGCTGGG GGAGCAGTGC TGGACCGCGC GCATCCGCGC AGTTGGCCTC      180
154  CTGACCGTCA TCAGCAAAGG CTGCAGCTTG AACTGCGTGG ATGACTCACA GGACTACTAC      240
155  GTGGGCAAGA AGAACATCAC GTGCTGTGAC ACCGACTTGT GCAACGSCAG CGGGGCCCCAT      300
156  GCCCTGCAGC CGGCTGCCGC CATCCTTGCG CTGCTCCCTG CACTCGGCCT GCTGCTCTGG      360
157  GGACCCGGCC AGCTATAGGC TCTGGGGGGC CCCGMTGCAG CCCACACTGG GTGTGGTGCC      420
158  CCAAGGCCTC TGTGSCACTC CTMACAGACC TGGGCCCAGT GGGAGSCTGT CTCTNGGTTC      480
159  CTGAGGCACA TCCT      494
161  (2) INFORMATION FOR SEQ ID NO: 5:
163      (i) SEQUENCE CHARACTERISTICS:
164          (A) LENGTH: 136 amino acids
165          (B) TYPE: amino acid
166          (C) STRANDEDNESS: single
167          (D) TOPOLOGY: linear
169      (ii) MOLECULE TYPE: peptide
171      (vii) IMMEDIATE SOURCE:
172          (A) LIBRARY: GenBank
173          (B) CLONE: 434660
175      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
177  Met Ser Ala Thr Ser Asn Met Arg Val Phe Leu Pro Val Leu Leu Ala
178      1          5          10          15
179  Ala Leu Leu Gly Met Glu Gln Val His Ser Leu Met Cys Phe Ser Cys
180      20          25          30
181  Thr Asp Gln Lys Asn Asn Ile Asn Cys Leu Trp Pro Val Ser Cys Gln
182      35          40          45
183  Glu Lys Asp His Tyr Cys Ile Thr Leu Ser Ala Ala Ala Gly Phe Gly
184      50          55          60

```

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TIME: 13:54:13

Input Set : N:\Crf3\RULE60\09934586.txt

Output Set: N:\CRF3\10162001\I934586.raw

```

185 Asn Val Asn Leu Gly Tyr Thr Leu Asn Lys Gly Cys Ser Pro Ile Cys
186 65          70          75          80
187 Pro Ser Glu Asn Val Asn Leu Asn Leu Gly Val Ala Ser Val Asn Ser
188          85          90          95
189 Tyr Cys Cys Gln Ser Ser Phe Cys Asn Phe Ser Ala Ala Gly Leu Gly
190          100          105          110
191 Leu Arg Ala Ser Ile Pro Leu Leu Gly Leu Gly Leu Leu Leu Ser Leu
192          115          120          125
193 Leu Ala Leu Leu Gln Leu Ser Pro
194          130          135

```

196 (2) INFORMATION FOR SEQ ID NO: 6:

198 (i) SEQUENCE CHARACTERISTICS:

199 (A) LENGTH: 109 amino acids

200 (B) TYPE: amino acid

201 (C) STRANDEDNESS: single

202 (D) TOPOLOGY: linear

204 (ii) MOLECULE TYPE: peptide

206 (vii) IMMEDIATE SOURCE:

207 (A) LIBRARY: GenBank

208 (B) CLONE: 1199651

210 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

```

212 Met Ser Thr Thr Ser Ser Met Arg Val Phe Ser Ile Val Leu Gln Ala
213 1          5          10          15
214 His Leu Leu Gly Val Glu Leu Val Pro Ser Leu Ile Cys Ser Ser Cys
215          20          25          30
216 Thr His Gln Lys Ser Asn Ile Asn Pro Pro Trp Pro Val Ala Cys Lys
217          35          40          45
218 Asp Thr Gly Asn Tyr Cys Ile Met Leu Phe Ser Ala Val Gly Phe Gly
219          50          55          60
220 Asn Val Asn Leu Gly Tyr Thr Leu Asn Thr Gly Cys Ser Gln Ser Cys
221 65          70          75          80
222 Pro His Glu Asn Ile Asn Ile Asn Pro Gly Val Ala Ser Val Asn Ser
223          85          90          95
224 Tyr Gln Ser Ser Phe Cys Asn Phe Ser Asn Ala Cys Leu
225          100          105

```

227 (2) INFORMATION FOR SEQ ID NO: 7:

229 (i) SEQUENCE CHARACTERISTICS:

230 (A) LENGTH: 148 base pairs

231 (B) TYPE: nucleic acid

232 (C) STRANDEDNESS: single

233 (D) TOPOLOGY: linear

235 (ii) MOLECULE TYPE: cDNA

237 (vii) IMMEDIATE SOURCE:

238 (A) LIBRARY: THP1PEB01

239 (B) CLONE: 72518

241 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

```

243 CCTGAAGCCG ACCATCTGNT CCGACCAGGN CAACTACTGN GTGACTGTGT CTGCTAGTGC      60
244 CGGCATTTGG AATCTTGTGC CATTNGACA CAGCCTNAGC AAGACCTNTT CCCC GGCCTN      120
245 NCCCATCCCA GAAGNGTCA ATNATNGT      148

```

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DATE: 10/16/2001

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Input Set : N:\Crif3\RULE60\09934586.txt

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## 247 (2) INFORMATION FOR SEQ ID NO: 8:

## 249 (i) SEQUENCE CHARACTERISTICS:

250 (A) LENGTH: 196 base pairs

251 (B) TYPE: nucleic acid

252 (C) STRANDEDNESS: single

253 (D) TOPOLOGY: linear

255 (ii) MOLECULE TYPE: cDNA

## 257 (vii) IMMEDIATE SOURCE:

258 (A) LIBRARY: THP1PLB02

259 (B) CLONE: 155838

## 261 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

263 CGGACAGGCT GCTTTGGTTT GTNACCTCCA GGCAGGACGG CCATCCTCTC CAGAATGAAG 60

264 ATCTTCTTGC CANTGCTGCT GGCTGCCCTT CTNGGTGTGG AGCGAGCCAG CTCGCTGATG 120

265 TGCTTCTCCT GCTTNAACCA GAAGAGCAAT CTGTACTGCC TGAAGCCGAC CATCTGCTCC 180

266 GACCAGGNCA ACTACT 196

## 268 (2) INFORMATION FOR SEQ ID NO: 9:

## 270 (i) SEQUENCE CHARACTERISTICS:

271 (A) LENGTH: 278 base pairs

272 (B) TYPE: nucleic acid

273 (C) STRANDEDNESS: single

274 (D) TOPOLOGY: linear

276 (ii) MOLECULE TYPE: cDNA

## 278 (vii) IMMEDIATE SOURCE:

279 (A) LIBRARY: HNT2RAT01

280 (B) CLONE: 486681

## 282 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

284 GTTCGGGGAG CTCGGCCAGG CTGCTGGTAC CTGCGTCCGC CCGGCGAGCA GGACAGGCTG 60

285 CTTTGGTTTG TGACCTNCAG GCAGGACGGC CATCCTCTNC AGAATGAAGA TCTTCTTGCC 120

286 AGTGCTGCTG GNTGCCCTTC TGGGTGTGGA GCGAGCCAGC TNGCTGATGT GCTTCTTCTG 180

287 CTTGAACCAG AAGAGCAATC TGTACTGCTG AAGCCGACCA TCTGTTTCGAC CAGGNCAACT 240

288 ACTGCGTGAC TGTGTCTGCT AGTGNCGGCA TTGGGAAT 278

## 290 (2) INFORMATION FOR SEQ ID NO: 10:

## 292 (i) SEQUENCE CHARACTERISTICS:

293 (A) LENGTH: 262 base pairs

294 (B) TYPE: nucleic acid

295 (C) STRANDEDNESS: single

296 (D) TOPOLOGY: linear

298 (ii) MOLECULE TYPE: cDNA

## 300 (vii) IMMEDIATE SOURCE:

301 (A) LIBRARY: BRSTTUT01

302 (B) CLONE: 604702

## 304 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

306 GGTTTCGGGGA GCTCGGCCAG GCTGCTGGTA CCTGCGTCCG CCCGGCGAGC AGGACAGGCT 60

307 GCTTTGGTTT GTGACCTCCA GGCAGGACGG CCATCCTCTC CAGAATGAAG ATCTTCTTGC 120

308 CAGTGCTGCT GGCTGCCCTT CTGGGTGTGG AGCGAGCCAG CTCGCTGATG TGCTTCTCCT 180

309 GCTTGAACCA GAAGAGCAAT CTGTACTGCC TGAAGCCGAC CATCTGCTCC GACCAGGACA 240

310 ACTACTGCGT GACTGTGTCT GC 262

## 312 (2) INFORMATION FOR SEQ ID NO: 11:

## 314 (i) SEQUENCE CHARACTERISTICS:

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/934,586

DATE: 10/16/2001

TIME: 13:54:14

Input Set : N:\Crf3\RULE60\09934586.txt

Output Set: N:\CRF3\10162001\I934586.raw

L:26 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]

L:27 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]

L:71 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1

L:102 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2